



United States Department of the Interior



BUREAU OF LAND MANAGEMENT

Mother Lode Field Office
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McCabe Flat toilet replacement (CA-180-14-03) Finding of No Significant Impact February 2014

It is my determination that this decision will not result in significant impacts to the quality of the human environment. Anticipated impacts are within the range of impacts addressed by the Sierra Resource Management Plan (RMP). Thus, the proposed action does not constitute a major federal action having a significant effect on the human environment; therefore, an environmental impact statement (EIS) is not necessary and will not be prepared. This conclusion is based on my consideration of CEQ's following criteria for significance (40 CFR §1508.27), regarding the context and intensity of the impacts described in the EA and based on my understanding of the project:

- 1) *Impacts can be both beneficial and adverse and a significant effect may exist regardless of the perceived balance of effects.* Potential impacts include soil disturbance and temporary noise and dust during demolition and construction.
- 2) *The degree of the impact on public health or safety.* No aspects of the proposed action have been identified as having the potential to significantly and adversely impact public health or safety. In fact, the project is designed to enhance public health.
- 3) *Unique characteristics of the geographic area.* The project area is located within the Merced Wild and Scenic River and the Merced River ACEC. No wild and scenic river outstandingly remarkable values would be negatively affected. The river segment classification would not be negatively affected. The ACEC values would not be affected.
- 4) *The degree to which the effects on the quality of the human environment are likely to be highly controversial effects.* No anticipated effects have been identified that are scientifically controversial. As a factor for determining within the meaning of 40 C.F.R. § 1508.27(b)(4) whether or not to prepare a detailed environmental impact statement, "controversy" is not equated with "the existence of opposition to a use." *Northwest Environmental Defense Center v. Bonneville Power Administration*, 117 F.3d 1520, 1536 (9th Cir. 1997). "The term 'highly controversial' refers to instances in which 'a substantial dispute exists as to the size, nature, or effect of the major federal action rather than the mere existence of opposition to a use.'" *Hells Canyon Preservation Council v. Jacoby*, 9 F.Supp.2d 1216, 1242 (D. Or. 1998).
- 5) *The degree to which the possible effects on the human environment are likely to be highly uncertain or involve unique or unknown risks.* The analysis does not show that the proposed action would involve any unique or unknown risks. The entire project occurs on previously disturbed and/or currently developed sites.

6) *The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.* The proposed action is not precedent setting.

7) *Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.* No significant site specific or cumulative impacts have been identified. The proposed action is consistent with the Sierra RMP.

8) *The degree to which the action may adversely affect National Historic Register listed or eligible to be listed sites or may cause loss or destruction of significant scientific, cultural or historical resources.* The proposed action would not adversely affect cultural properties listed on or eligible for the National Register of Historic Places.

9) *The degree to which the action may adversely affect ESA listed species or critical habitat.* No ESA listed species or critical habitat would be affected by the action.

10) *Whether the action threatens a violation of environmental protection law or requirements.* There is no indication that the proposed action will result in actions that will threaten such a violation.

William S. Haigh
Field Manager,
Mother Lode Field Office

Date



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EA Number: CA-180-14-03

Proposed Action: McCabe Flat toilet replacement

Location: McCabe Flat: T 4 S, R 18 E, Sec 8
Borrow pit: T 4 S, R 18 E, Sec 6
Mariposa County (See attached maps)

1.0 Purpose of and Need for Action

1.1 Need for Action

The Merced River Recreation Area is a popular and well-used attraction in Mariposa County downstream from Yosemite National Park. Summertime use is high with overnight campers and day-use visitors alike. The four developed recreation sites within the Merced River Recreation Area each have a permanent toilet – three vault toilets and two single-unit solar composting units. The two solar composting toilets are located at McCabe Flat campground and are not able to keep up with demand by recreation users at this location, increasing maintenance workload and exposure to potential pathogens. The Mother Lode Field Office (BLM) has had success with other solar composting toilets along other rivers but this unit is simply not designed for such high use. The replacement of the two solar composting toilets with a standard vault toilet would solve this problem. A new vault toilet can be installed at the current location within the same footprint.

1.2 Conformance with Applicable Land Use Plans

The proposed action is subject to the Sierra Resource Management Plan and Record of Decision, dated 2008, which states the following objectives for recreation: develop recreation sites that meet public health and safety standards (page 27). The proposed action is in the Merced Management Area. Objectives for that area include providing for river oriented and land based recreation opportunities, protection of cultural sites, and management of the Merced Wild and Scenic River, and Merced River Wilderness Study Area (WSA).

2.0 Proposed Action and Alternatives

2.1 Proposed Action

The proposed action is to replace two existing solar composting toilets with a similarly sized double vault toilet, or two single unit vaults toilets. The existing solar composting toilets would be dismantled and removed from site. Considerable fill would be added around the rear of the unit because the current design requires maintenance access below the ground level; the new units would simply have a vault below. Heavy equipment such as a backhoe would be used to demolish the old unit, haul the fill dirt, and install the new units. Approximately 90 cubic yards of fill would be needed behind the new toilet unit(s). This fill material would be used to reconstruct what was removed during the construction of the existing composting units (photo 2). The proposed new vault toilets would be assembled and installed in the same footprint. This fill material would be taken from a borrow pit, located at the site of reclaimed mining claim near Railroad Flat campground, two miles

downstream of the project area, on BLM-administered land. The finished double unit vault toilet would be sited exactly the same as the current unit and would not substantially exceed the existing footprint.

Photo 1: Here are the existing toilet units.



Photo 2: This is the profile showing the rear area that would need to be filled in.



Photo 3: This is the borrow pit at Railroad Flat.



2.2 Project Design Features

- The BLM archaeologist will monitor construction for buried archaeological deposits and other unanticipated cultural resources during project implementation (i.e., construction/ground disturbance involving heavy equipment). If a post-review discovery is made, the Field Manager will be notified immediately. The area of the discovery will be avoided by construction personnel and equipment, and all applicable procedures (Protocol/Section 106, NAGPRA, ARPA, etc.) will be followed. Construction will not be allowed to resume in the area of the discovery until all applicable procedures are followed and the situation is fully resolved.
- All heavy equipment and materials will have to comply with the 15-ton weight restriction on the Briceburg Suspension Bridge. Low suspension cables also pose some restriction. If construction equipment or materials cannot meet these bridge restrictions, then they must access the Merced River Road via the Burma Grade. The Burma Grade is the last 3 miles of Bull Creek Road coming in from the north. It is a rough, steep, dirt road, which leaves the pavement some 17 miles north near Buck Meadows.
- To prevent the introduction or spread of invasive weed species during project implementation, equipment would be cleaned before entering the site. Weeds would be aggressively treated each year around the new toilet and back at the borrow pit using manual or mechanical methods (pulling, grubbing, etc.).

2.3 No Action

If the toilet is not replaced, it will continue to be overwhelmed. BLM employees currently must remove the composted waste material manually and haul it out of the Merced River canyon in garbage cans. This annual maintenance exposes employees to unnecessary contamination. Replacing the toilets with vault style units will eliminate this exposure.

2.4 Alternatives Considered but Eliminated from Detailed Analysis

The need for action stems from the current composting toilets being overwhelmed by high use. BLM considered retrofitting the existing units somehow to convert the basement area into a watertight vault. Several sealant methods were considered to paint or spray onto the interior walls of the basement room. It was determined that the building was not designed to hold the pressure that would be placed upon the structure if it were converted into a vault. The additional engineering required made the project prohibitive.

3.0 Affected Environment

Water quality and soils – McCabe Flat campground is located approximately 2.2 miles downstream from Briceburg where the Highway 140 meets the river. Within the campground, the toilet site is between the parking area and the main beach site. The Merced River is a generally steep walled canyon with only a few flat areas. McCabe Flat is one such flat and therefore has always been an area of human interest and occupation. This project area is a few hundred feet from the river's edge (depending on current river flow). The Merced River is a stable, bedrock and boulder controlled stream flowing through a relatively narrow canyon. Water for domestic consumption in the town of Mariposa is withdrawn from the Merced River a little over 1 mile downstream of Briceburg, and one mile upstream from McCabe Flat – the project area. It is withdrawn seasonally, mostly in the summer months, and pumped to a reservoir close to the town of Mariposa. The next diversion of water for domestic consumption is more than 10 miles downstream of the project area in Lake McClure.

No unique soil formations exist in the project area at McCabe Flat or the borrow pit at Railroad Flat. According to soils mapping data the soils within the project area are derived from basic and metabasic igneous rock or from metasedimentary rock. The soils have developed under chaparral, oak woodland or forest vegetation and are typically shallow to moderately deep on mountain slopes or ridges and moderately deep to very deep on toe slopes. Soils were mapped and identified by the USDA-NRCS. Dominant soils include the Maymen-Mariposa and Auburn-Daulton associations. Maymen and Mariposa soils are well-drained, very shallow or shallow soils weathered from material weathered from metasedimentary rock on moderately steep to very steep slopes. Auburn and Dalton soils are well-drained, very shallow or shallow soils derived from materials weathered from schist and slate on gently sloping to very steep slopes (SCS, 1974). Other included soils are the Boomer, Josephine, and Trabuco series. Surface textures are commonly loam, silt loam, or sandy loam with coarse fragments ranging from 5 to 60 percent consisting of gravels, stones, boulders, channers, and flagstones. Erosion hazards are severe due to long steep slopes. There are areas of exposed bedrock typically on the shoulders of steep slopes. The borrow pit is at the site of a mining claim and consists of ancient river cobbles and gravel. This material is consistent with the native beach material at the toilet site in McCabe Flat Campground.

Vegetation – The project area was inventoried by the BLM botanist in spring 2011. Vegetation in and around the project area is blue oak/live oak and gray pine woodland, with occasional ponderosa pine. Understory vegetation includes buck brush, white-leaf manzanita, buckeye, poison oak, and forbs and grasses. One of the forbs is a BLM sensitive species, Mariposa clarkia (*Clarkia biloba australis*). Mariposa clarkia is an annual wildflower with a very limited distribution; the species is found almost exclusively in the Merced River drainage, and occurs at McCabe Flat though not specifically within the project area. It is often found in chaparral and foothill woodland habitat both on serpentinite soils which are uncommon and more common soil formations. It blooms in late spring and early summer (May-July) often prolifically in the Merced River canyon; annual variation in population size has been observed. Its limited range and threats from non-native plants and road maintenance led to its ranking by the California Native Plant Society as 1B.2 (Rare, threatened, or endangered in California and elsewhere).

A review of the scientific literature did not yield specific studies about Mariposa clarkia. However, a 1955 study by Roberts and Lewis provides valuable information about *Clarkia biloba* and its rare, closely related taxon Mariposa clarkia (*C. biloba australis*). *C. biloba* produces abundant seed, though the seeds have no special means of dissemination (other than gravity). Colonies may be composed of up to tens of thousands of individuals at densities of 10-100 adult plants per square yard. Each mature individual may produce 10-20 capsules and around 50 seeds per capsule. A *Clarkia springvillensis* seed bank study found approximately 223 seeds/m² within patches and 440 seeds/m² just after seed is dropped from flowers (McCue and Holtsford 1998). Seed dormancy and germination requirements specifically of Mariposa clarkia are unknown; however, studies of related taxons can provide insight. Experiments have suggested that *Clarkia* species persist a least few years in the soil after production, but probably less than eight years (McCue and Holtsford 1998). It is thought that the Mariposa clarkia's isolation in the Merced River drainage led to its speciation (Roberts and Lewis 1955).

Wildlife/fisheries – The BLM wildlife biologist inventoried the project area in spring 2011. The Merced River is free flowing from its headwaters high in Yosemite down to Lake McClure near Bagby. It is host to many native and non-native fish. It is a popular fishing destination for trout and bass. Wildlife is typical for the project area's topographic location, aspect, and elevation on the western slope of the Sierra Nevada. No special status species occur within the project area.

Cultural resources/Native American issues – The project area was inventoried by the BLM archaeologist in spring 2011. Cultural resources are typical for the project area's topographic location, aspect, and elevation on the western slope of the Sierra Nevada. The area has a long-history of human use, extending from the prehistoric period through the historic period and today.

Recreation/visual resources – This section of the Merced River is a popular recreation destination during the spring and summer. Campers, boaters, picnickers, wildflower enthusiasts, fishermen, and day hikers are the primary users. Its proximity to Yosemite National Park makes it an attractive alternative to the crowds of summer, while still being close enough for daily visits to the park. The area offers outstanding whitewater boating and wildflower viewing in the spring and excellent camping throughout the year. McCabe Flat is the most used of the three BLM campgrounds along the Merced River. It is popular for campers and day swimmers alike. The Merced River Wild and Scenic River corridor is designated VRM Class I.

Special designations – The project area is located within the Merced River Wild and Scenic corridor and Merced River area of critical environmental concern (ACEC).

4.0 Environmental Effects

The following critical elements have been considered for this environmental assessment, and unless specifically mentioned later in this EA, have been determined to be unaffected by the proposal: air quality, prime/unique farmlands, floodplains, hazardous waste, wilderness, and environmental justice.

4.1 Impacts of the Proposed Action

Water quality and soils – The proposed action would not affect water quality. Construction would not release sediment into the Merced River and its tributaries, because of the distance of the project area from the river. Once installed, the new toilet units would contain leakage of human waste into the Merced River and its tributaries. No unique soil formations exist in the project area at McCabe Flat or the borrow pit at Railroad Flat. The application of fill material harvested from a borrow pit at Railroad Flat would not impact the site because this fill material is of similar composition and comes from a relatively close and similar location two miles downstream. The replacement of the existing toilet structure with a new unit in its same footprint would not impact the soil characteristic at this site.

Vegetation – The BLM botanist analyzed the impacts of the project on wildlife, especially on special status species. Her analysis was designed to help BLM meet its obligations under the Endangered Species Act and other policies. She recommends that the proposed action would not affect threatened and endangered species or other BLM special status species. Although the Merced River canyon supports a number of special status plant species, only Mariposa clarkia (*Clarkia biloba australis*) occurs near the project area. Plants of this species have been found at the margin of McCabe Flat campground. However, these plants have not been observed within the project area: in the immediate vicinity of the toilet block at McCabe Flat or the barrow pit at Railroad Flat. No impacts are anticipated.

Wildlife/fisheries – The BLM wildlife biologist analyzed the impacts of the project on wildlife, especially on special status wildlife. Her analysis was designed to help BLM meet its obligations under the Endangered Species Act and other policies. She recommends that the proposed action would not affect threatened and endangered wildlife or other BLM special status wildlife. Of particular concern is the limestone salamander, which is listed under the California Endangered

Species Act. The project area has been surveyed for special status species by BLM wildlife biologists over the years for various projects. This area is within the range of the limestone salamander, which is a state-listed species. Although this salamander is present in the general area, it is not present in the project area: at the current toilet site at McCabe Flat or the borrow pit at Railroad Flat. No impacts are anticipated.

Cultural resources/Native American issues – The BLM archaeologist is in the process of studying the project area (area of potential effects) to determine whether the proposed action would affect significant cultural resources, pursuant to Section 106 of the National Historic Preservation Act. Adverse effects to significant or potentially significant cultural resources would be avoided. The project area has been inventoried various times over the years. All of the excavation would be in previously disturbed areas (the existing solar composting toilet footprint at McCabe Flat and the borrow pit at Railroad Flat). Therefore, it is not anticipated that potential undiscovered subsurface archaeological deposits would be unearthed. The BLM archaeologist will monitor construction and post-discovery provisions and other applicable policies and procedures will be followed if a discovery is made (see section 2.2 project design features)

Recreation/visual resources – McCabe Flat is the most used of the three BLM campgrounds along the Merced River. It is popular for campers and day swimmers alike. There would be some minor inconveniences for recreation users during the removal and construction process. Portable toilets would be provided as alternative facilities while the new units are installed. This project would not be scheduled during the peak summer season. The replacement of the existing toilets would not affect the recreation opportunity at this site. The Merced River Wild and Scenic River corridor is designated VRM Class I. There would be no change to the visual resources.

Special designations – The project area is located within the Merced River Wild and Scenic corridor and Merced River area of critical environmental concern (ACEC). There would be no negative impacts to the Wild and Scenic River outstandingly remarkable values or classifications. There would be no negative impacts to the Merced River ACEC values.

4.2 Impacts of the No Action Alternative

Water quality and soils, vegetation, wildlife/fisheries, cultural resources/Native American issues, visual resources, and special designations – the no action alternative would have no impact on these resources/program areas.

Recreation – the current composting toilets have been maintained properly over the years and are in working order. So the public is largely unaware of any deficiencies in the system. From the recreating public's perspective, the no-action alternative does not have much, if any impact. Solar composting toilets are excellent solutions for wilderness. In a heavily used developed campground setting, however, a vault toilet is a better solution because there is far less maintenance. Composting toilets require manually shoveling the composted waste material by hand and transferring it to the county landfill in barrels or garbage cans in a pick-up truck. The continued use of the existing composting toilets would result in overuse of the facilities, potentially exposing BLM maintenance staff and the public to contamination/pathogens. BLM staff would spend more time and energy than is available during the busy summer season. The primary impact of the no-action alternative is on the BLM staff having to maintain a system that is more complicated than necessary.

4.3 Cumulative Impacts

Because no site-specific adverse impacts are expected to any resource, cumulative effects at a larger scale are not anticipated.

5.0 Agencies and Persons Consulted

No outside agencies were consulted for this project.

5.1 BLM Interdisciplinary Team

Reviewers:

- David Greenwood, Outdoor Recreation Planner/NEPA author
- Jeff Horn, Outdoor Recreation Planner/Visual Resources Specialist
- Jeff Babcock, Engineer
- Beth Brenneman, Botanist
- Peggy Cranston, Wildlife Biologist
- James Barnes, Cultural Resources/NEPA Coordinator

/s/ James Barnes *1/14/14*

NEPA Coordinator/Cultural Resource Specialist

/s/ Jeff Babcock *1/7/14*

Engineer

/s/ Jeff Horn *1/14/14*

Outdoor Recreation Planner/Visual Resource Specialist

/s/ Beth Brenneman *1/7/14*

Botanist

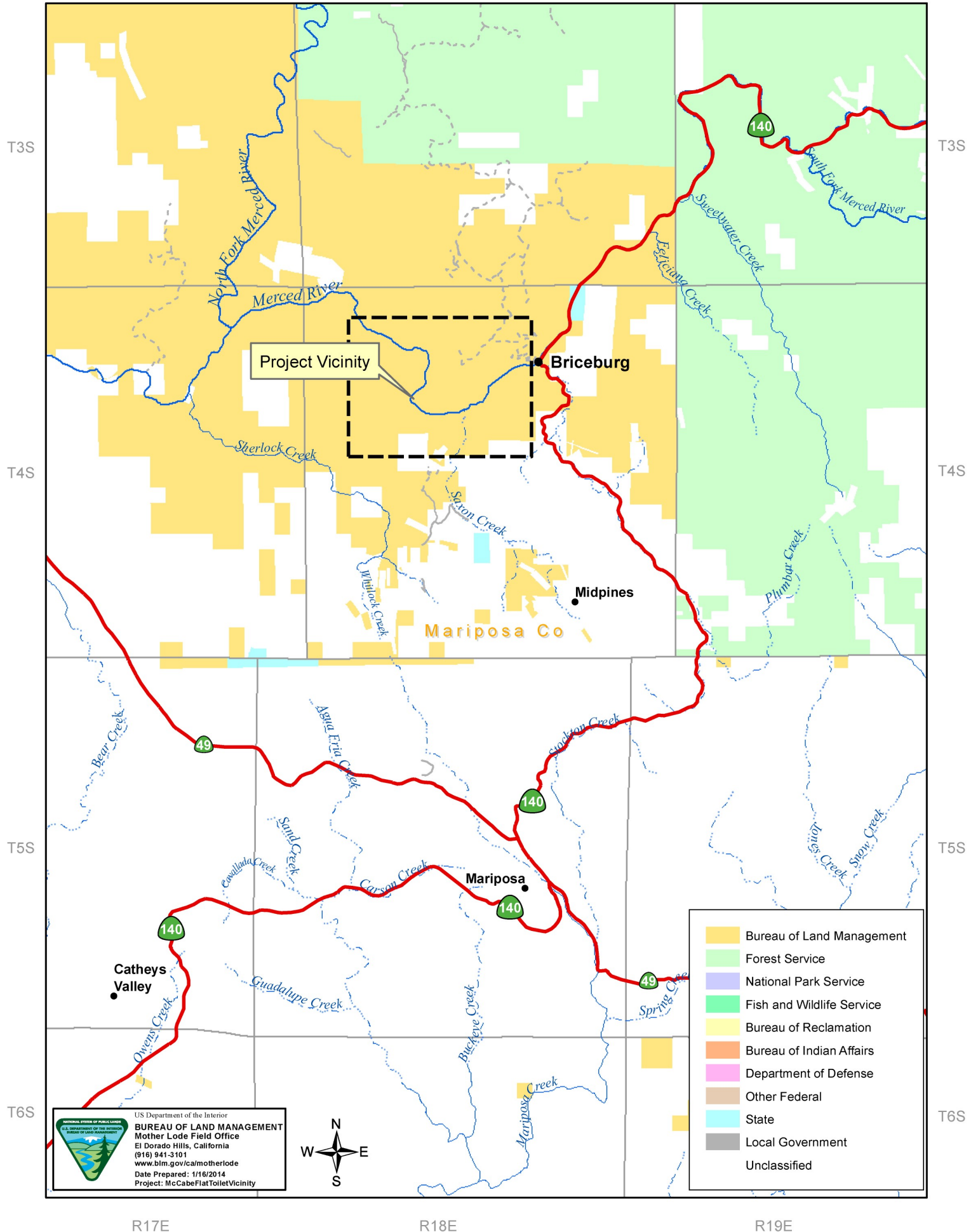
/s/ Peggy Cranston *1/7/14*

Wildlife Biologist

5.2 Availability of Document and Comment Procedures

This EA, posted on Mother Lode Field Office's website (www.blm.gov/ca/motherlode) under Information, NEPA (or available upon request), will be available for a 15-day public review period. Comments should be sent to the Mother Lode Field Office, 5152 Hillsdale Circle, El Dorado Hills, CA 95762 or emailed to: dgreenwo@blm.gov

McCabe Flat Project Vicinity Map



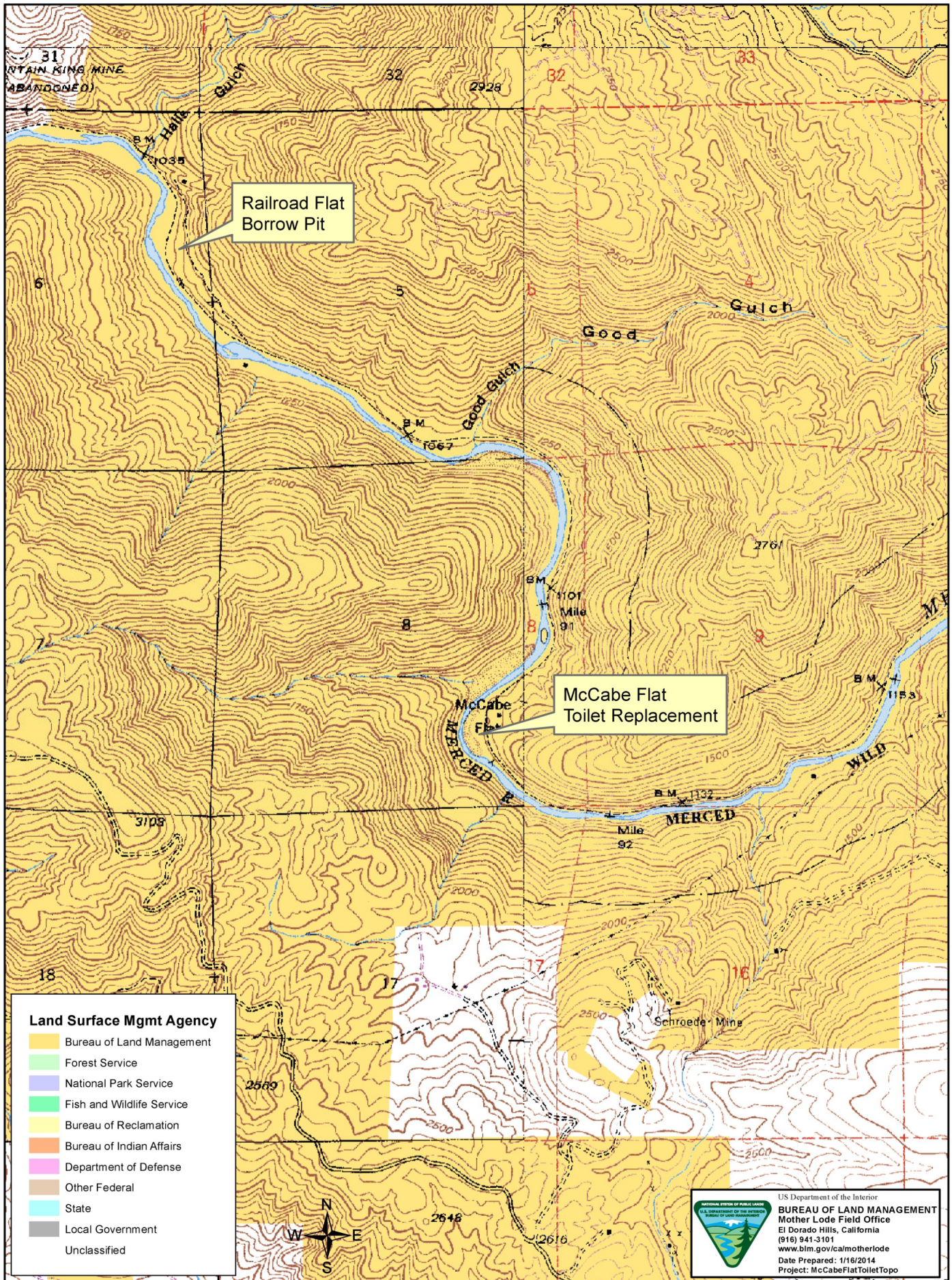
McCabe Flat Toilet Replacement Project

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